

CLAIMS:

1. A method for the operation of a panel placement system for punching presses wherein a feed slide is moved between the punching die of the punching press and a transfer position located in front of the punching press, wherein first connection means of the feed slide, in the transfer position, seize a panel in the rear area to advance it stepwise through said punching press in response to the cycle of said punching press, characterized in that said first connection means seize said panel exclusively from above in a rear edge area which is located between the rear edge and the surfaces to be punched out.
2. The method according to claim 1 wherein said feed slide is guided by a slide guideway and is moved along a first axis towards said punching die and away therefrom to a pick-up position, wherein said first connection means further are guided by the feed slide and are preferably dislocated along a second axis perpendicular to the first axis, and wherein an advancement slide having releasable second connection means is dislocated along the first axis to feed a panel to a transfer position for a take-over by said first connection means with one panel being seized by said first connection means from above at the rear edge area during a punching step of the punching press in the transfer position which corresponds to the panel position for the first punching step of said punching press and the advancement slide brings a succeeding panel into the transfer position when said first connection means have reached their take-over position along the two axes.
3. The method according to claim 1 wherein two feed slides are guided by a slide guideway each and are dislocated along a first axis between said punching die

of said punching press and a transfer position, wherein said first connection means further are guided by the respective feed slide and are preferably dislocated along a second axis perpendicular to the first axis.

4. The method according to any one of claims 1 to 3, characterized in that said connection means seize the rear edge area via a vacuum.
5. The method according to any one of claims 1 to 4, characterized in that said connection means seize the rear edge area electromagnetically.
6. The method according to claim 2, characterized in that each succeeding panel is advanced below said first panel by means of said second connection means.
7. The method according to any one of claims 1 to 6, characterized in that the rear edge area, when received, is lifted against said connection means.
8. The method according to any one of claims 1 to 6, characterized in that said first connection means carry out a lowering and lifting motion to seize the rear edge area of the panel.
9. The method according to claim 7, characterized in that said panel or said rear edge area is lifted by separate lifting means against said first connection means.
10. The method according to any one of claims 1 to 9, characterized in that said connection means are active across a major width of the panel.
11. The method according to any one of claims 1 to 10, characterized in that said first connection means seize the panel in a positive fit by means of pointed

projections which penetrate into the rear edge area of the panel when said connection means have seized said edge area.

12. The method according to any one of claims 1 to 11, characterized in that said connection means and the remaining grid are separated from each other by means of a gas beam.
13. Connection means for carrying out the method according to any one of claims 1 to 12, characterized in that they are disposed on at least one ledge (25) which cause gripping portions (50, 56) to engage gores of said rear edge area which are defined between the panel surfaces to be punched out and said rear edge.
14. The connection means according to claim 13, characterized in that said ledge (25) is coupled to a vacuum source and has at least one suction port (50) at the underside.
15. The connection means according to claim 13, characterized in that said ledge (25) has one or more electromagnets to seize the panel from above.
16. The connection means according to any one of claims 13 to 15, characterized in that said ledge (25) has relatively sharp projections (56) at the underside, which penetrate into the material of said panel or a coat covering said panel when said connection means are in engagement with said rear edge area.
17. The connection means according to claim 16, characterized in that pin-like spikes are provided as projections which penetrate through said panel.

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18. The connection means according to claim 17, characterized in that said spikes are disposed within the suction ports (50) of vacuum nozzles.